

REMARKS

Although the Examiner indicated the drawings were accepted, this amendment revises the specification and drawings to comply with the objections from the draftsperson dated March 3, 2000. A Petition for the Acceptance of Color Drawings was previously submitted in conjunction with an amendment filed April 18, 2003. A copy of the Petition is submitted herewith for the convenience of the Office. A decision on the petition is requested.

This amendment is submitted prior to or concurrently with the payment of the issue fee and complies with the provisions of 37 C.F.R. § 1.312, therefore, no petition or fee is required. No new matter has been added. Entry of the amendment and the revised drawing figures is requested.

Respectfully submitted,



Andrew F. Nilles  
Registration No. 47,825  
Attorney for Applicants  
TRASKBRITT, PC  
P.O. Box 2550  
Salt Lake City, Utah 84110-2550  
Telephone: 801-532-1922

Date: February 23, 2004  
AFN

Enclosures: Replacement Sheets  
Annotated Sheets Showing Changes  
Courtesy copy of Petition to Accept Color Drawings

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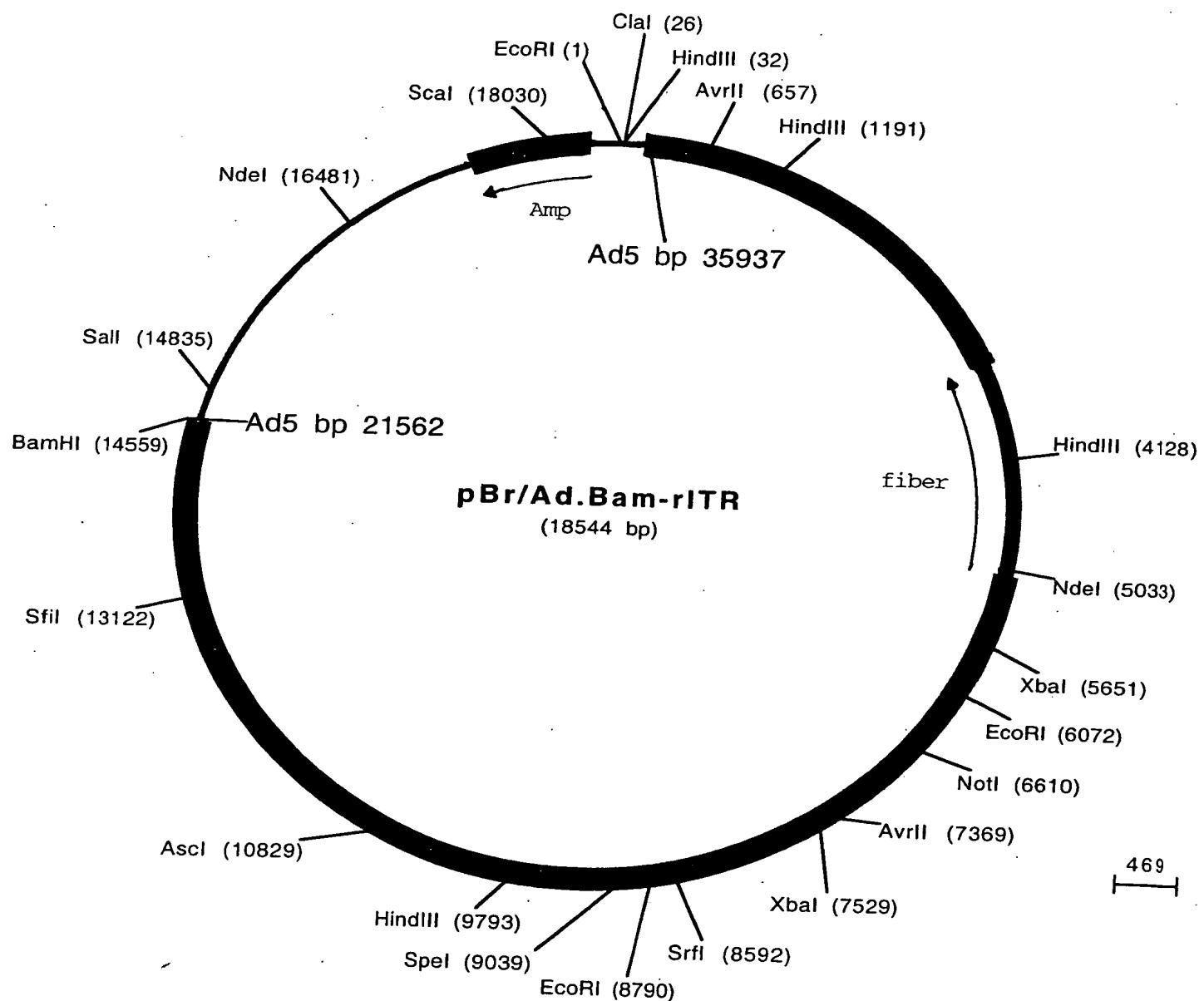
TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

Serial No.: 09/517,898 Docket No.: 2578-3982.2US

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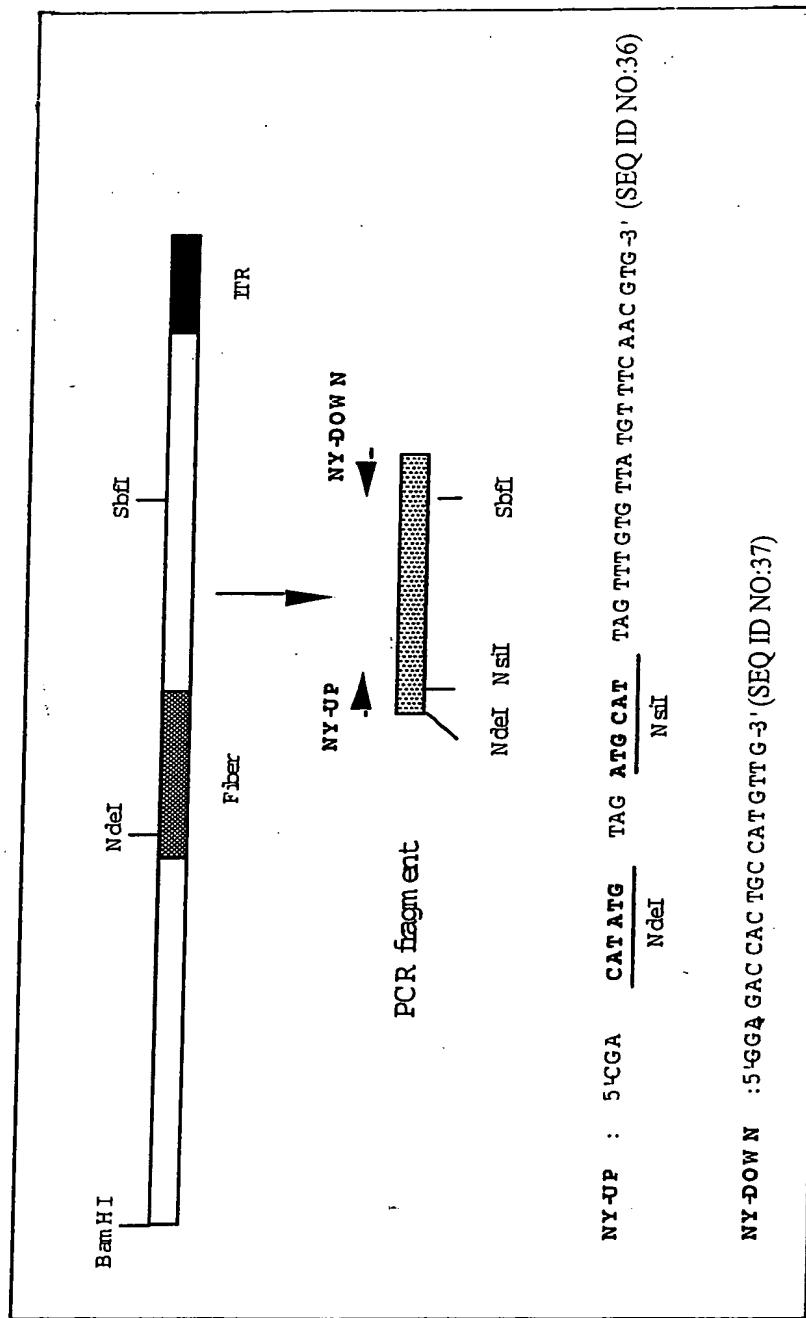
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Figure 2



remove border line



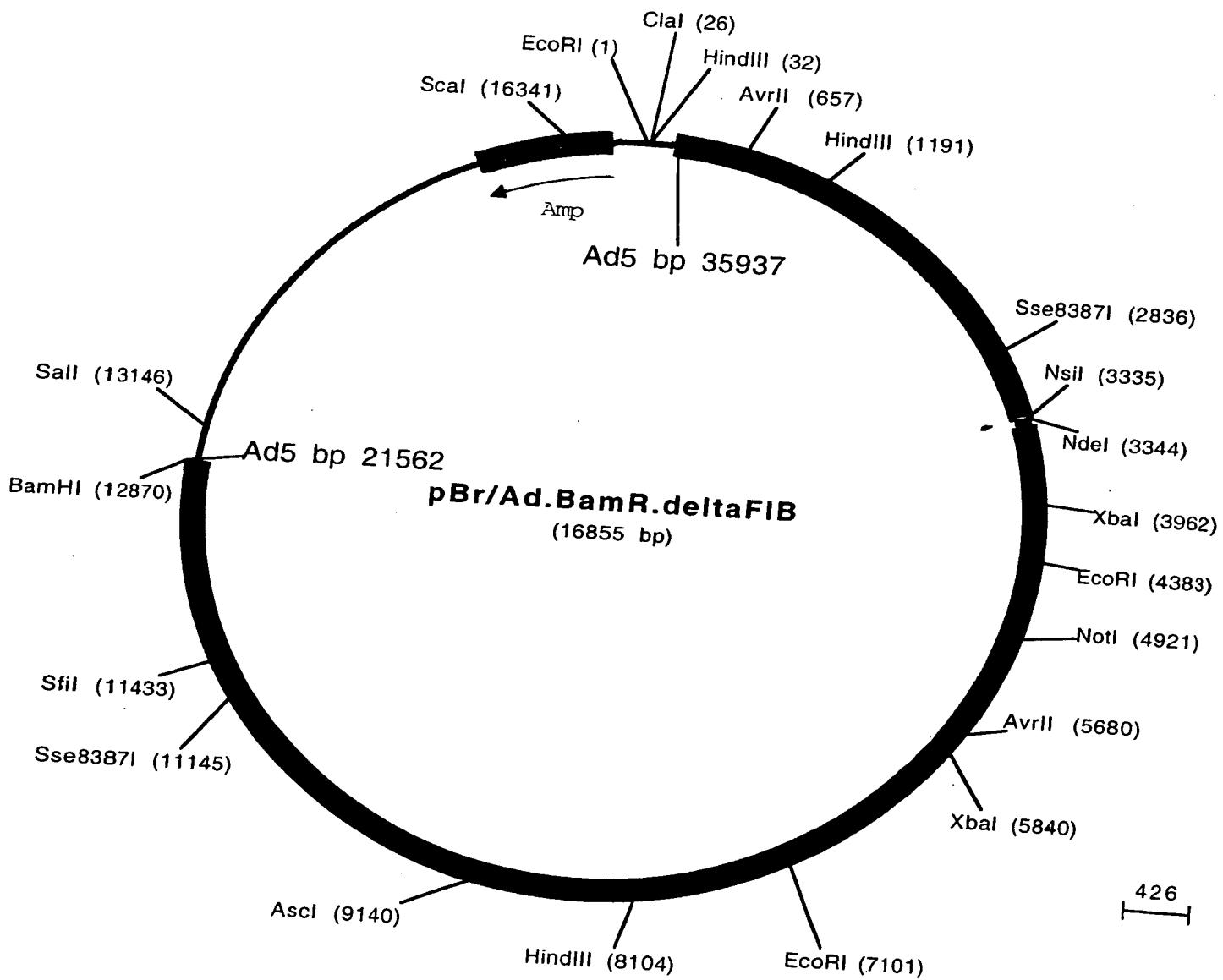
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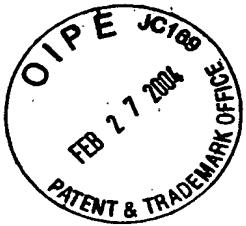
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Figure 4: Sequence of Ad5/fib16 chimeric fiber

ATGAAGCGCGCAAGACCGTCTGAAGATACTTCAACCCGTATCCATATGAAGATGAAAGCAGCT  
CACAAACACCCCTTATAAACCTGGTTCATTCCTCAAATGGTTGCACAAAGCCCAGATGGAGT  
TCTAACTCTAAATGTGTTAATCCACTCACTACCGCCAGCGGACCCCTCCAACCTAAAGTTGGAAGC  
AGTCTTACAGTAGATACTATCGATGGGTCTTGGAGGAAAATATAACTGCCAAGGCCACTCACTA  
AAACTAACCACTCCATAGGTTATTAAAGGATCTGGCTTGCAAACAAAGGATGATAAAACTTGT  
ATCGCTGGGAGATGGGTTGGAACAAAGGATGATAAAACTATGTTATCGCTGGGAGATGGGTTAATA  
ACAAAAAAATGATGTACTATGTGCCAAACTAGGACATGGCCTGTGTTGACTCTTCCAATGCTATCA  
CCATAGAAAACAACACCTTGTGGACAGGCGAAAACCAAGCGCCAATGTGTAATTAAAGAGGGAGA  
AGATTCCCCAGACTGTAAGCTCACTTAGTTAGTGAAGAATGGAGGACTGATAAAATGGATACATA  
ACATTAATGGGAGCCTCAGAATATACTAACACCTTGTGTTAAAAACAATCAAGTACAATCGATGTA  
ACCTCGCATTGATAATACTGGCCAATTATTACTTACCTATCATCCCTTAAAGTAACCTGAACCT  
TAAAGACAACCAAAACATGGCTACTGGAACCATAACCAGTGCCAAAGGCTCATGCCAGCACC  
GCCTATCCATTATAACATACGCCACTGAGACCCTAAATGAAGATTACATTATGGAGAGTGT  
ACAAATCTACCAATGGAACTCTTTCCACTAAAAGTTACTGTCACACTAAACAGACGTATGTTAGC  
TTCTGGAATGGCCTATGCTATGAATTTCATGGCTCTAAATGCAGAGGAAGCCCCGGAAACTACC  
GAAGTCACTCTCATTACCTCCCCCTCTTTTCTTATATCAGAGAAGATGACTGAATGCATTAG  
(SEQ ID NO:32)

remove figure legend  
rotate



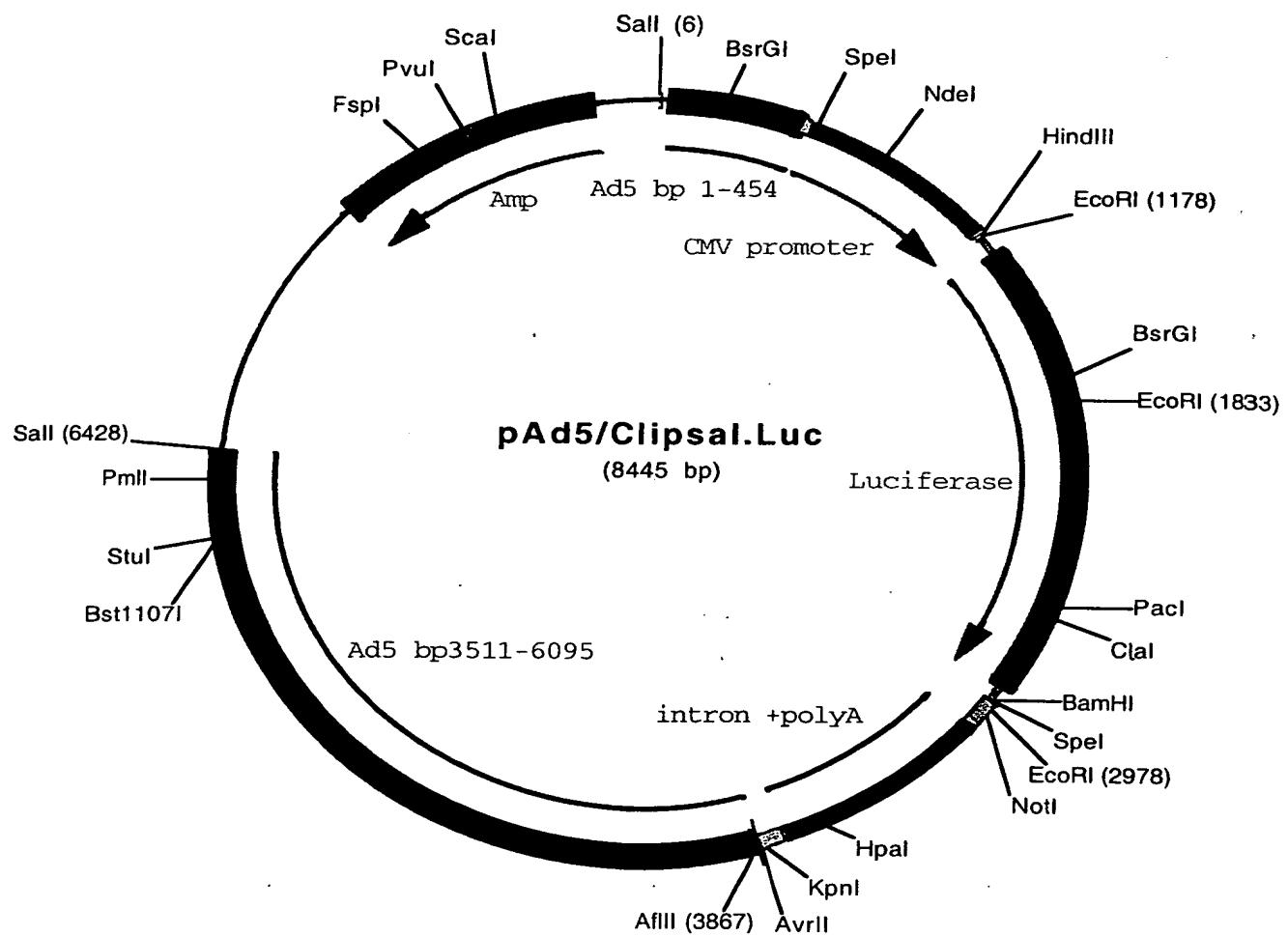
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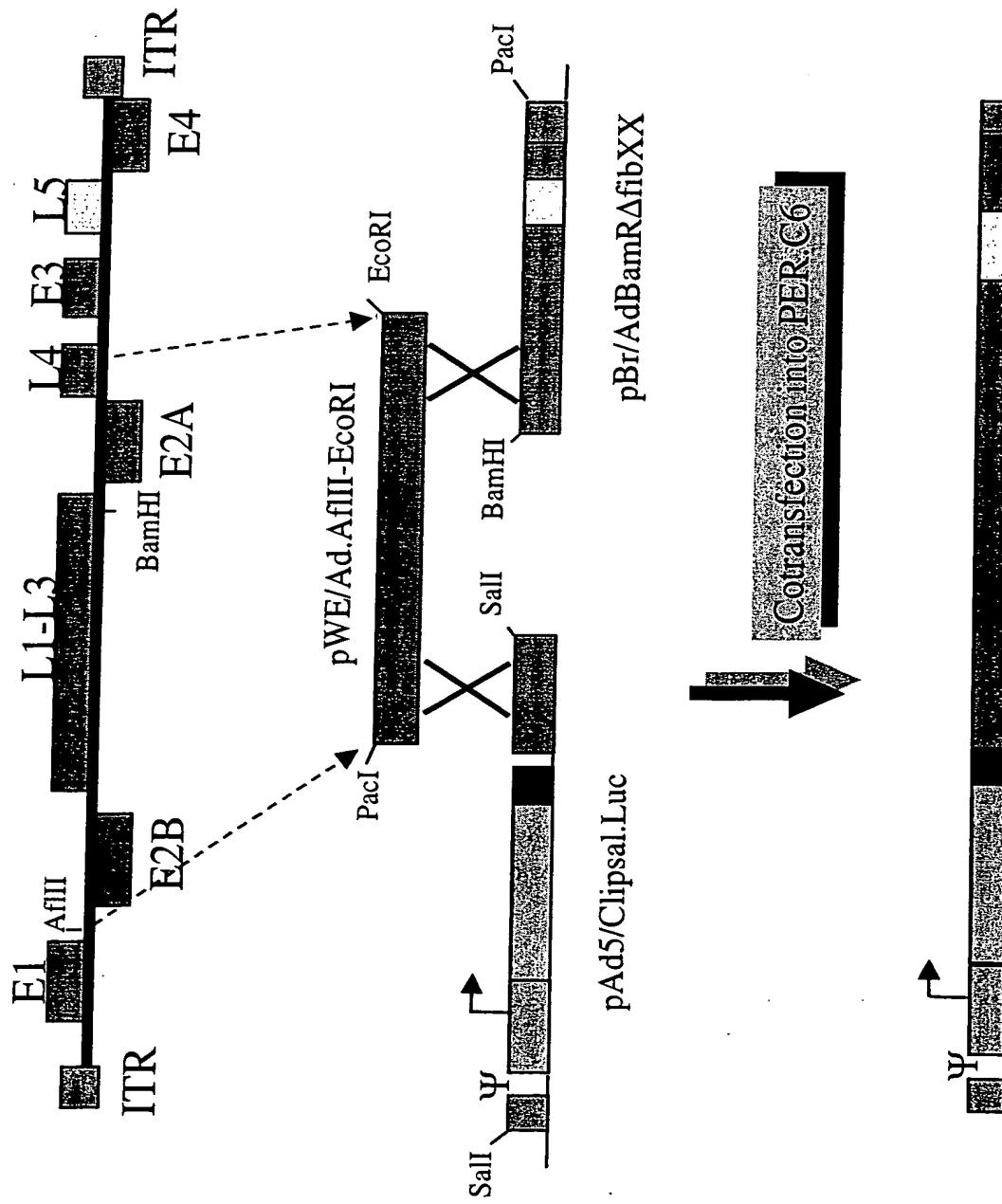
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**Figure 6: Generation of Chimeric Adenoviruses**



(① remove heading  
→ entered "Figure 6")



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FIGURE 7A

Alignment Report of alignment.DNA, using Clustal method with Weighted residue weight table.  
Wednesday, March 31, 1999 16:13

Page 1

1 AT GGC - CAAACGAGCTCGGCTAACGAGCTCCTTCAATCCGGTC T A C C C C T Fiber 16 Genbank (SEQ ID NO  
1 AT GAAGCGCGCAAGACCGTCTGAA-GATAACCTTCAA[C]CC[G]T[C]AT[C]CC[A]T Ad5/16 Fiber DNA (SEQ ID NO  
50 AT GAAGATGAAAGCAGCTCACAAACACCCCTTTATAAACCCCTGGTTTCATT Fiber 16 Genbank  
50 AT GAAGATGAAAGCAGCTCACAAACACCCCTTTATAAACCCCTGGTTTCATT Ad5/16 Fiber DNA  
32  
100 TCCTCAAATGGTTTGCAACAAAGCCCAGATGGAGTTCTAACTCTTAAAATG Fiber 16 Genbank  
100 TCCTCAAATGGTTTGCAACAAAGCCCAGATGGAGTTCTAACTCTTAAAATG Ad5/16 Fiber DNA  
150 TGTTAATCCACTCACTACCGGCCAGCGGACCCCTCCAACCTTAAAGTTGGAA Fiber 16 Genbank  
150 TGTTAATCCACTCACTACCGGCCAGCGGACCCCTCCAACCTTAAAGTTGGAA Ad5/16 Fiber DNA  
200 GCAGTCTTACAGTAGATACTATCGATGGGTCTTGGAGGAAAAATATAAC T Fiber 16 Genbank  
200 GCAGTCTTACAGTAGATACTATCGATGGGTCTTGGAGGAAAAATATAAC T Ad5/16 Fiber DNA  
250 GCCGCCAGCGCCACTCACTAAACACTAACCACTCCATAGGTTATTAATAGG Fiber 16 Genbank  
250 GCCGAAGCGCCACTCACTAAACACTAACCACTCCATAGGTTATTAATAGG Ad5/16 Fiber DNA  
300 ATCTGGCTTGCAAAACAAAGGATGATAAAACTTTGTTATCGCTGGGAGATG Fiber 16 Genbank  
300 ATCTGGCTTGCAAAACAAAGGATGATAAAACTTTGTTATCGCTGGGAGATG Ad5/16 Fiber DNA  
350 GGTTGGTAACAAAGGATGATAAAACTATGTTATCGCTGGGAGATGGGTTA Fiber 16 Genbank  
350 GGTTGGTAACAAAGGATGATAAAACTATGTTATCGCTGGGAGATGGGTTA Ad5/16 Fiber DNA  
400 ATAACAAAAAATGATGTACTATGTCGCAAACCTAGGACATGGCCTTGTGTT Fiber 16 Genbank  
400 ATAACAAAAAATGATGTACTATGTCGCAAACCTAGGACATGGCCTTGTGTT Ad5/16 Fiber DNA  
450 TGACTCTCCAATGCTATCACCATAGAAAACAACACCTTGTGGACAGGGG Fiber 16 Genbank  
450 TGACTCTCCAATGCTATCACCATAGAAAACAACACCTTGTGGACAGGGG Ad5/16 Fiber DNA  
500 CAAACCAAGCGCCACTGTGTAATTAAAGAGGGAGAAAGATTC C C C A G A C Fiber 16 Genbank  
500 CAAACCAAGCGCCACTGTGTAATTAAAGAGGGAGAAAGATTC C C C A G A C Ad5/16 Fiber DNA  
550 TGTAAGCTCACTTTAGTTCTAGTGAAAGAAATGGAGGACTGATAAAATGGATA Fiber 16 Genbank  
550 TGTAAGCTCACTTTAGTTCTAGTGAAAGAAATGGAGGACTGATAAAATGGATA Ad5/16 Fiber DNA  
600 CATAACATTAATGGGAGCCCTCAGAATATACTAACACCTTGT T T T A A A A C A Fiber 16 Genbank  
600 CATAACATTAATGGGAGCCCTCAGAATATACTAACACCTTGT T T T A A A A C A Ad5/16 Fiber DNA  
650 ATCAAGTTACAATCGATGTAACCTCGCATTGATAATACTGGCCAAATT Fiber 16 Genbank  
650 ATCAAGTTACAATCGATGTAACCTCGCATTGATAATACTGGCCAAATT Ad5/16 Fiber DNA  
700 ATTACTTACCTATCATCCCCTTAAAGTAACCTGAACTTTAACGACAACCA Fiber 16 Genbank  
700 ATTACTTACCTATCATCCCCTTAAAGTAACCTGAACTTTAACGACAACCA Ad5/16 Fiber DNA  
750 AACATGGCTACTGGAACCATAACCACTGGCCAAAGGCTTCATGCCAGCA Fiber 16 Genbank  
750 AACATGGCTACTGGAACCATAACCACTGGCCAAAGGCTTCATGCCAGCA Ad5/16 Fiber DNA  
800 CCACCGCCTATCCATTAAACATAACGCCACTGAGACCCCTAAATGAAGAT Fiber 16 Genbank  
800 CCACCGCCTATCCATTAAACATAACGCCACTGAGACCCCTAAATGAAGAT Ad5/16 Fiber DNA  
850 TACATTATGGAGAGTGTACTACAAATCTACCAATGGAACTCTCTTTCC Fiber 16 Genbank  
850 TACATTATGGAGAGTGTACTACAAATCTACCAATGGAACTCTCTTTCC Ad5/16 Fiber DNA  
900 ACTAAAAGTTACTGTCACACTAAACAGACGTATGTTAGCTCTGGAAATGG Fiber 16 Genbank  
900 ACTAAAAGTTACTGTCACACTAAACAGACGTATGTTAGCTCTGGAAATGG Ad5/16 Fiber DNA  
950 CCTATGCTATGAATTTCATGGTCTCTAAATGCAGAGGAAGCCCCGGAA Fiber 16 Genbank  
950 CCTATGCTATGAATTTCATGGTCTCTAAATGCAGAGGAAGCCCCGGAA Ad5/16 Fiber DNA  
1000 ACTACCGAAGTCACTCTCATTACCTCCCCCTTCTTTTCTTATATCAG Fiber 16 Genbank  
1000 ACTACCGAAGTCACTCTCATTACCTCCCCCTTCTTTCTTATATCAG Ad5/16 Fiber DNA  
1050 AGAAGATGACTGA Fiber 16 Genbank  
1050 AGAAGATGACTGAATGCATTAGTTGTATGTTCAACGTGTTATT Ad5/16 Fiber DNA  
1100 TCAATTG Fiber 16 Genbank  
1100 TCAATTG Ad5/16 Fiber DNA

Decoration 'Decoration #1': Box residues that differ from Fiber 16 Genbank.

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## Annotated Sheet Showing Changes

## FIGURE 2B-7C

Alignment Report of alignment.prot, using Clustal method with PAM250 residue weight table.  
Wednesday, March 31, 1999 16:19

Page

1 M A K R A R L S S - S F N P V Y P Y E D E S S S Q H P F I N genbank Fiber 16 (SEQ ID NO:35)  
1 M - K R A R P S E D T F N P V Y P Y E D E S S S Q H P F I N chimeric Ad5/Fib16 (SEQ ID NO:34)

30 P G F I S S N G F A Q S P D G V L T L K C V N P L T T A S G genbank Fiber 16  
30 P G F I S S N G F A Q S P D G V L T L K C V N P L T T A S G chimeric Ad5/Fib16

60 P L Q L K V G S S L T V D T I D G S L E E N I T A A A P L T genbank Fiber 16  
60 P L Q L K V G S S L T V D T I D G S L E E N I T A A A P L T chimeric Ad5/Fib16

90 K T N H S I G L L I G S G L Q T K D D K L C L S L G D G L V genbank Fiber 16  
90 K T N H S I G L L I G S G L Q T K D D K L C L S L E D G L V chimeric Ad5/Fib16

120 T K D D K L C L S L G D G L I T K N D V L C A K L G H G L V genbank Fiber 16  
120 T K D D K L C L S L G D G L I T K N D V L C A K L G H G L V chimeric Ad5/Fib16

150 F D S S N A I T I E N N T L W T G A K P S A N C V I K E G E genbank Fiber 16  
150 F D S S N A I T I E N N T L W T G A K P S A N C V I K E G E chimeric Ad5/Fib16

180 D S P D C K L T L V L V K N G G L I N G Y I T L M G A S E Y genbank Fiber 16  
180 D S P D C K L T L V L V K N G G L I N G Y I T L M G A S E Y chimeric Ad5/Fib16

210 T N T L F K N N Q V T I D V N L A F D N T G Q I I T Y L S S genbank Fiber 16  
210 T N T L F K N N Q V T I D V N L A F D N T G Q I I T Y L S S chimeric Ad5/Fib16

240 L K S N L N F K D N Q N M A T G T I T S A K G F M P S T T A genbank Fiber 16  
240 L K S N L N F K D N Q N M A T G T I T S A K G F M P S T T A chimeric Ad5/Fib16

270 Y P F I T Y A T E T L N E D Y I Y G E C Y Y K S T N G T L F genbank Fiber 16  
270 Y P F I T Y A T E T L N E D Y I Y G E C Y Y K S T N G T L F chimeric Ad5/Fib16

300 P L K V T V T L N R R M L A S G M A Y A M N F S W S L N A E genbank Fiber 16  
300 P L K V T V T L N R R M L A S G M A Y A M N F S W S L N A E chimeric Ad5/Fib16

330 E A P E T T E V T L I T S P F F F S Y I R E D D genbank Fiber 16  
330 E A P E T T E V T L I T S P F F F S Y I R E D D chimeric Ad5/Fib16

Decoration 'Decoration #1': Box residues that differ from genbank Fiber 16 .

Rotate to fit template

Amend to be Fig 7C

Remove page number



TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

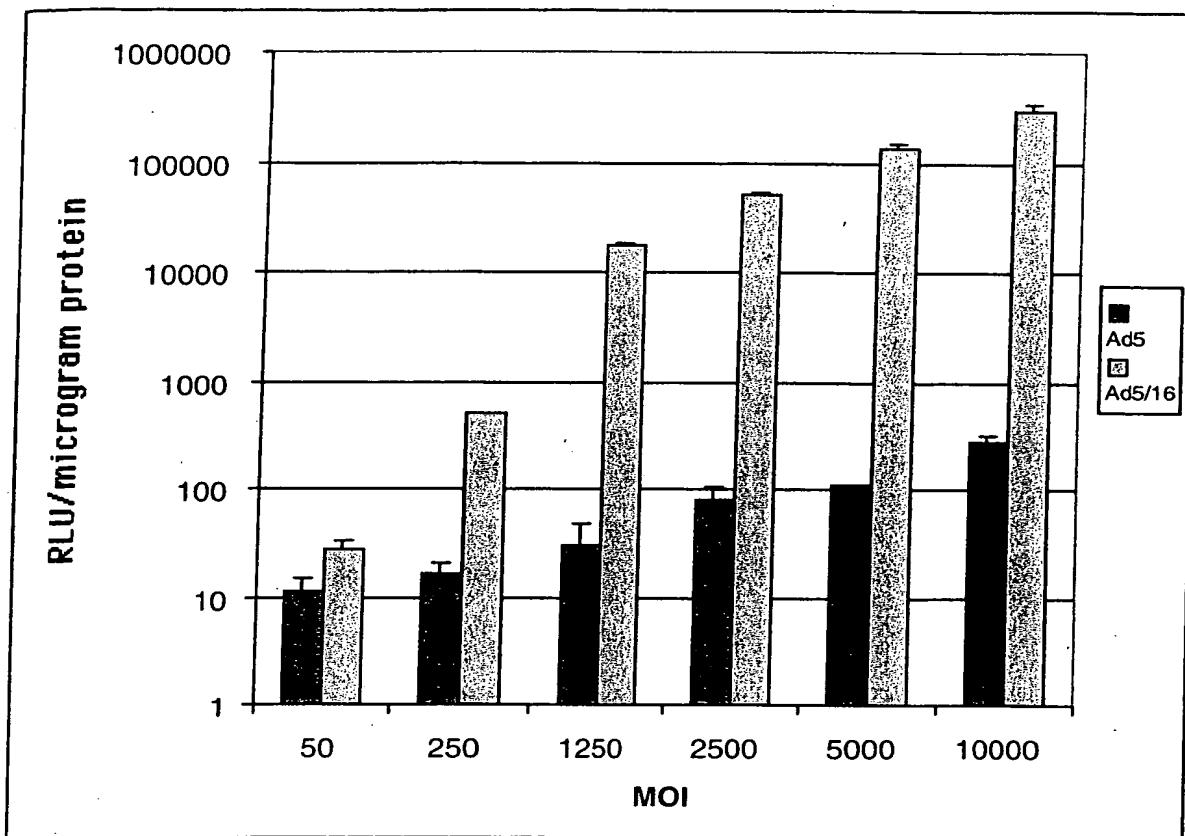
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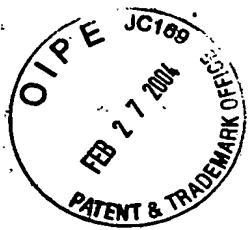
### Annotated Sheet Showing Changes

~~F18~~ 8



① Rotate + Enlarge + remove border

② add centered "Figure 8"



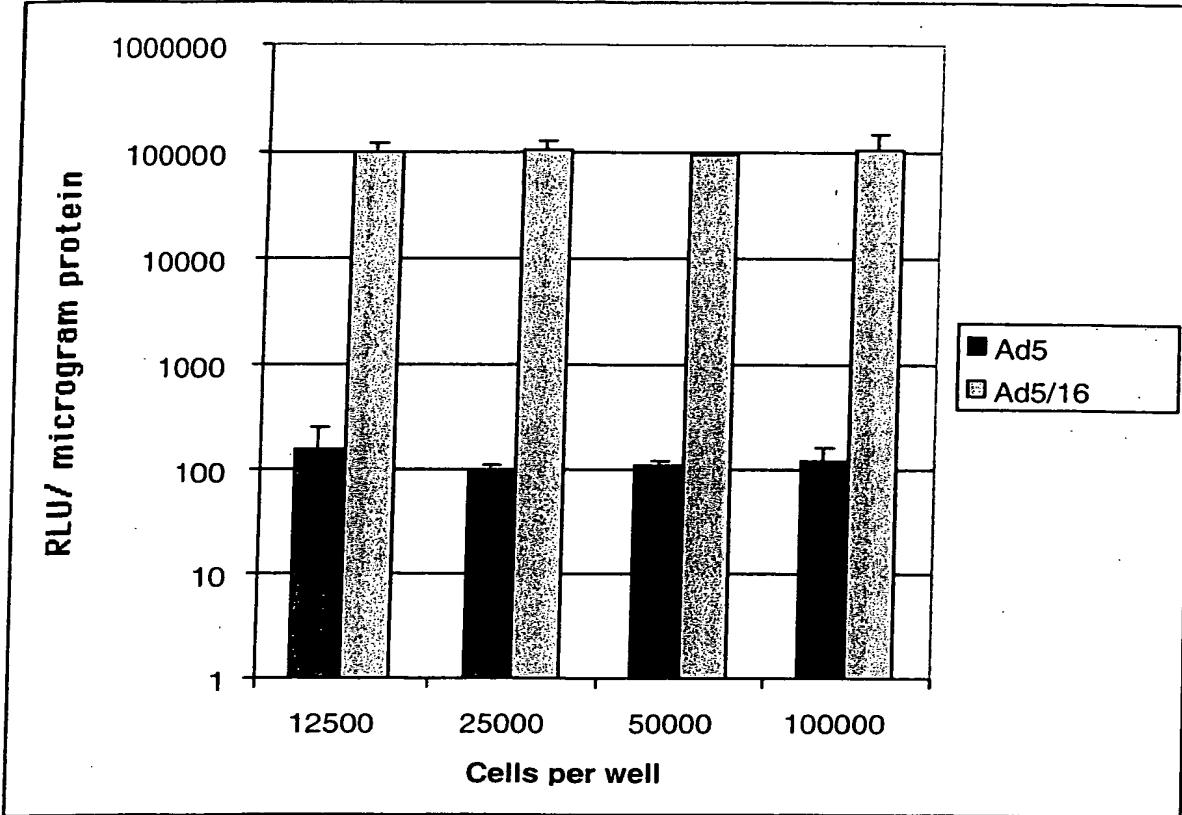
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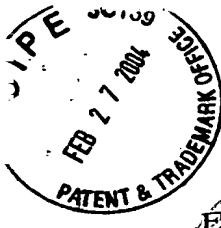
Serial No.: 09/517,898 Docket No.: 2578-3982.2US

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### Annotated Sheet Showing Changes



- ① Rotate + enlarge + remove border
- ② add centered "Figure 9"



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Inventor: Vogels et al.

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*E. G. Vogels*  
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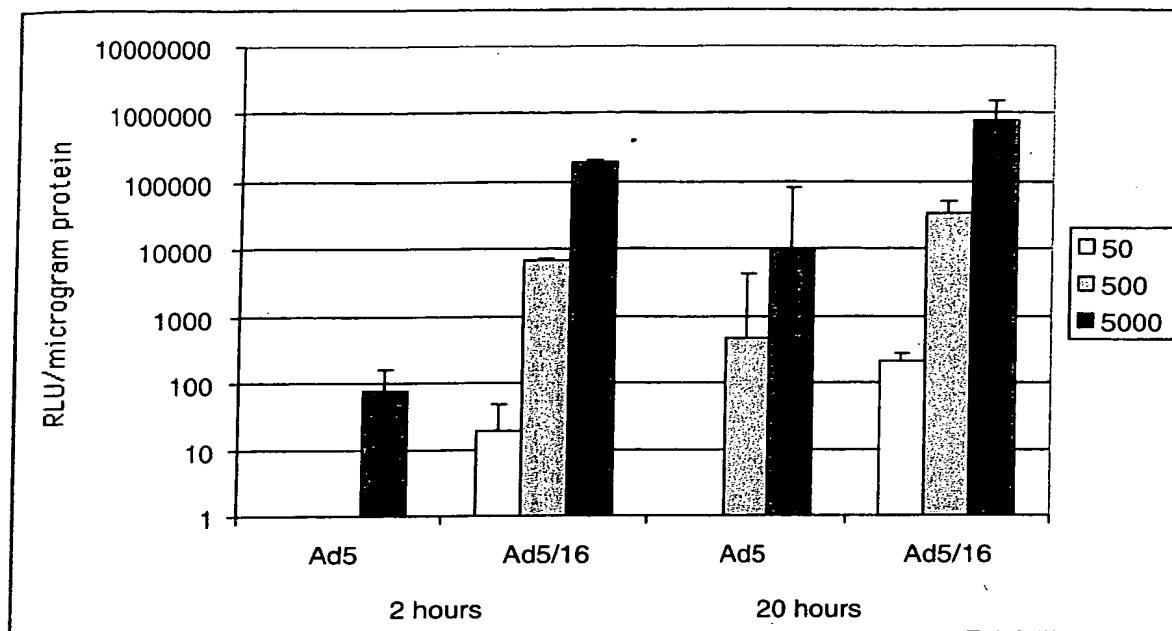
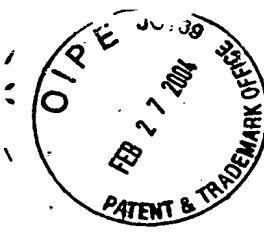


FIGURE 10

- ① Rotate + Enlarge + remove border
- ② add centered "Figure 10"



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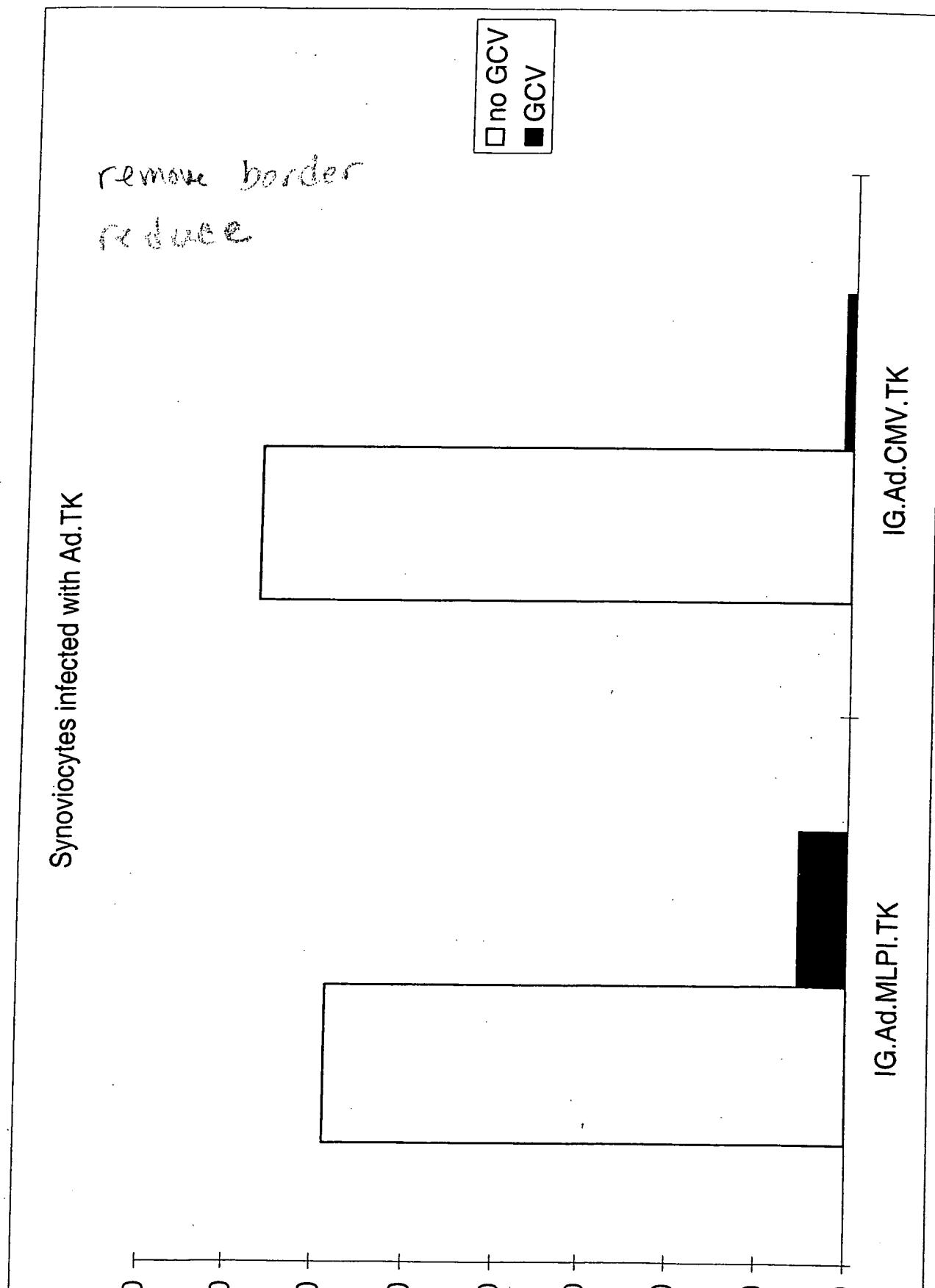
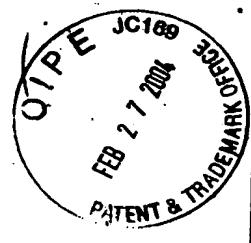


FIGURE 11



TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

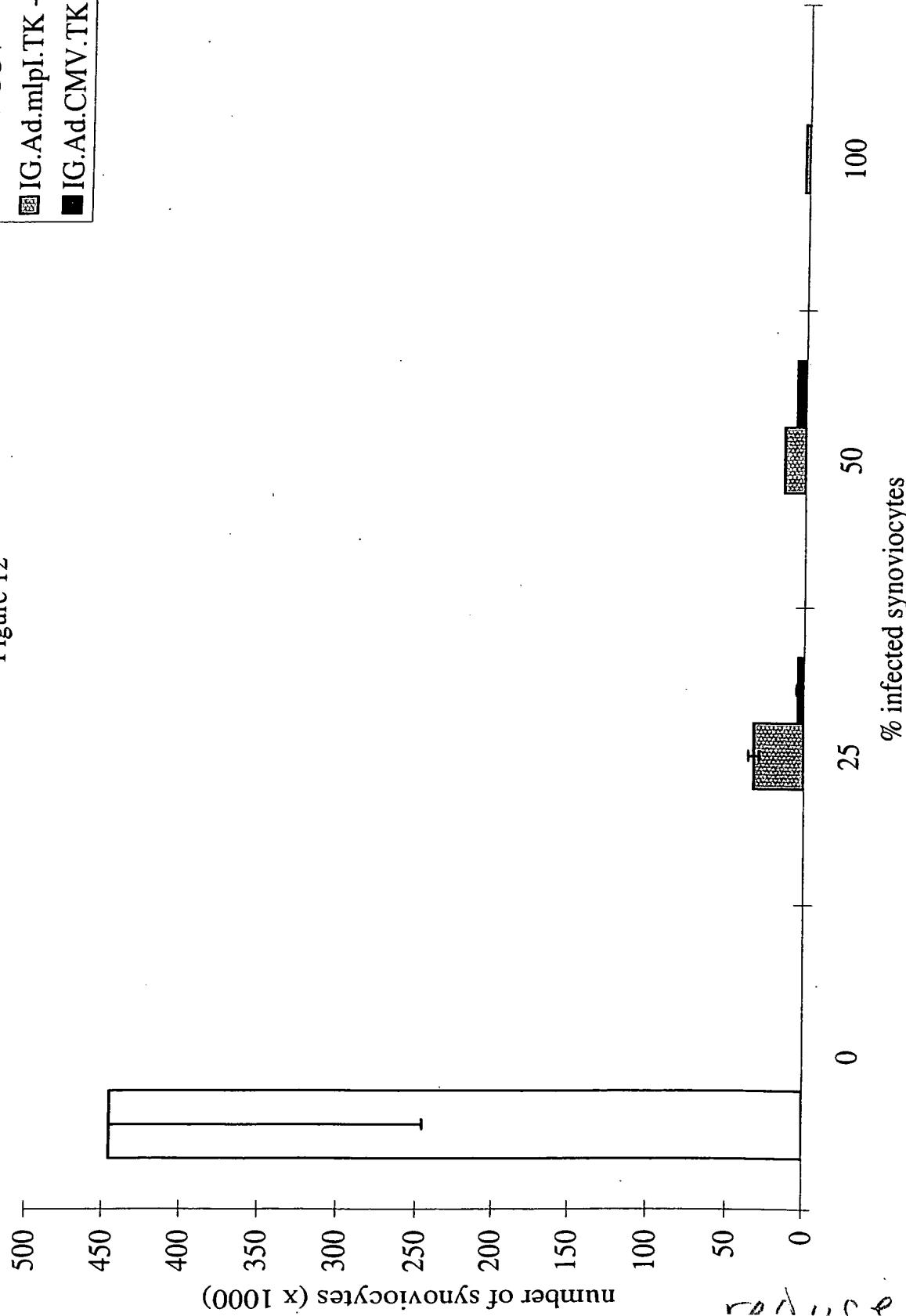
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- mock + GCV
- IG.Ad.mplI.TK + GCV
- IG.Ad.CMV.TK + GCV

Figure 12



TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR  
MACROPHAGE-LIKE CELL TRANSDUCTION

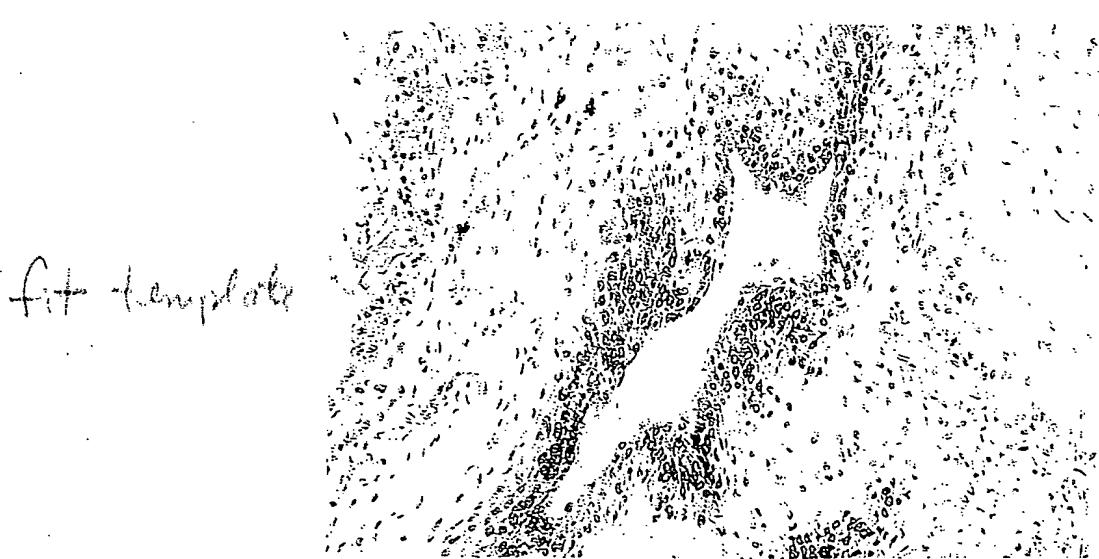
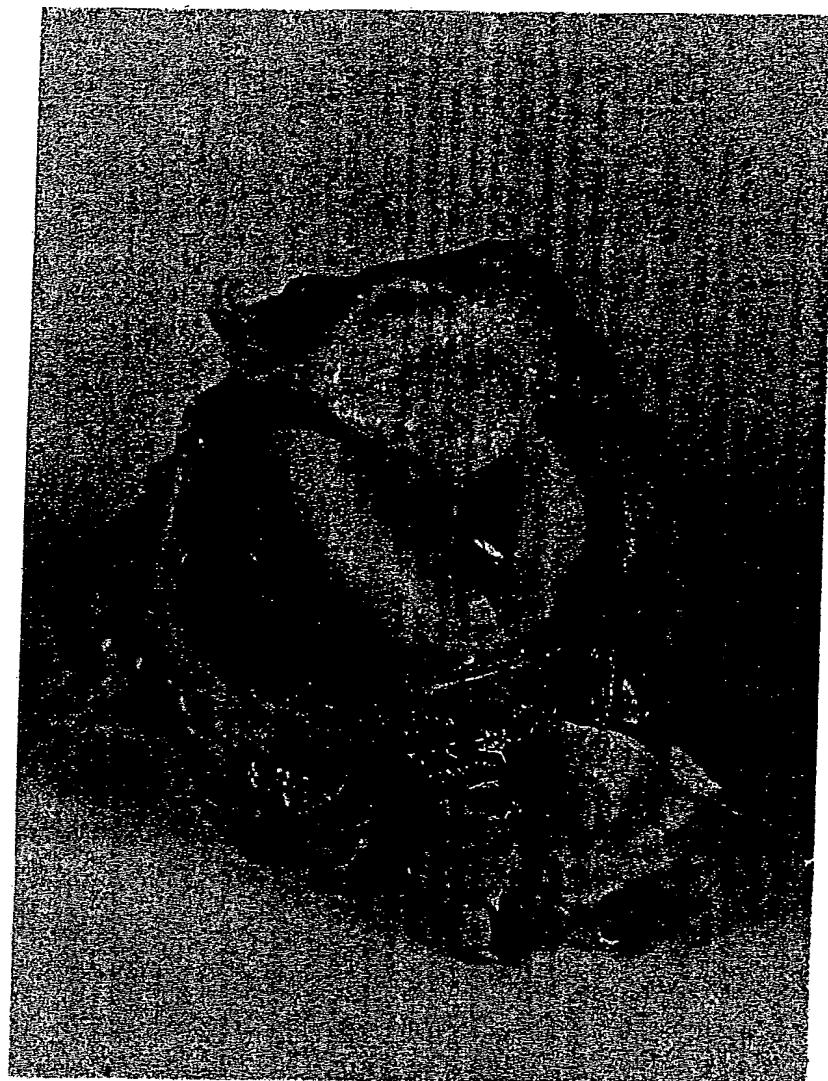
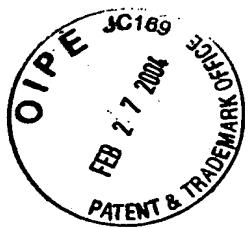
Inventor: Vogels et al.

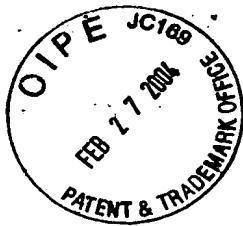
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FIGURE 13A





TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

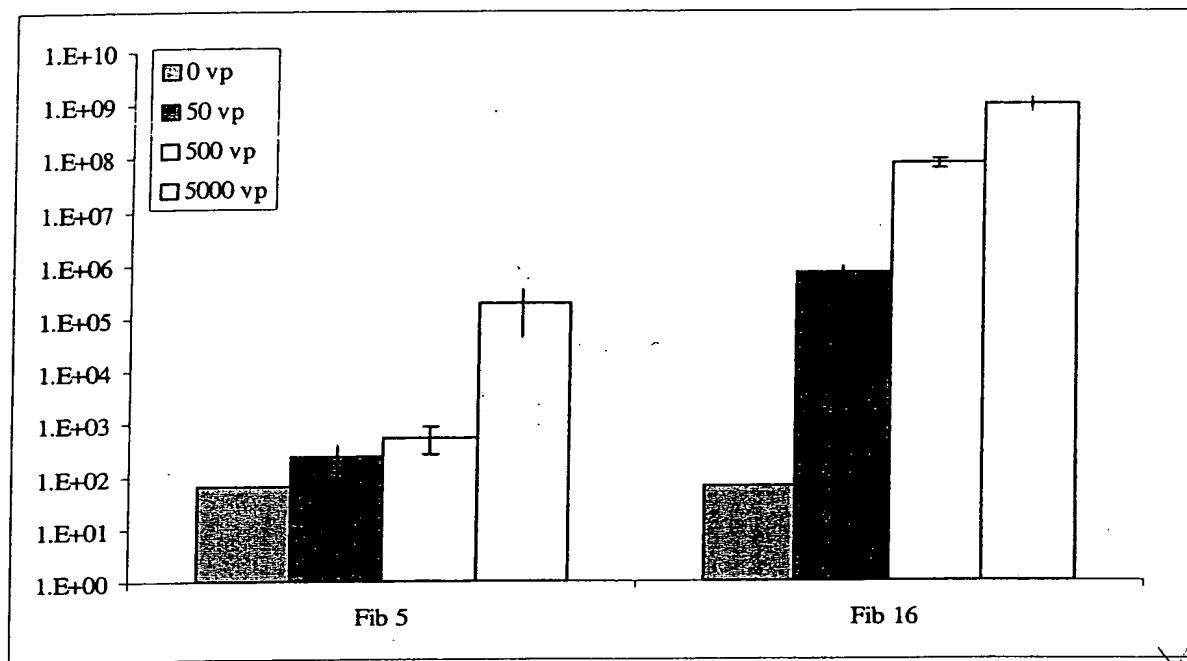
Inventor: Vogels et al.

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Figure 14: Comparison of infection of Ad5.luc and Ad5.fib16.luc on RA synoviocytes



- Figures 14
- ① Enlarge + Rotate + Remove Border & Fig. legn
  - ② add centered "FIGURE 14"

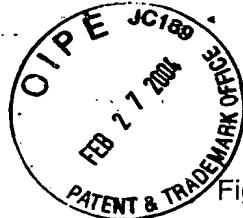


Figure 15

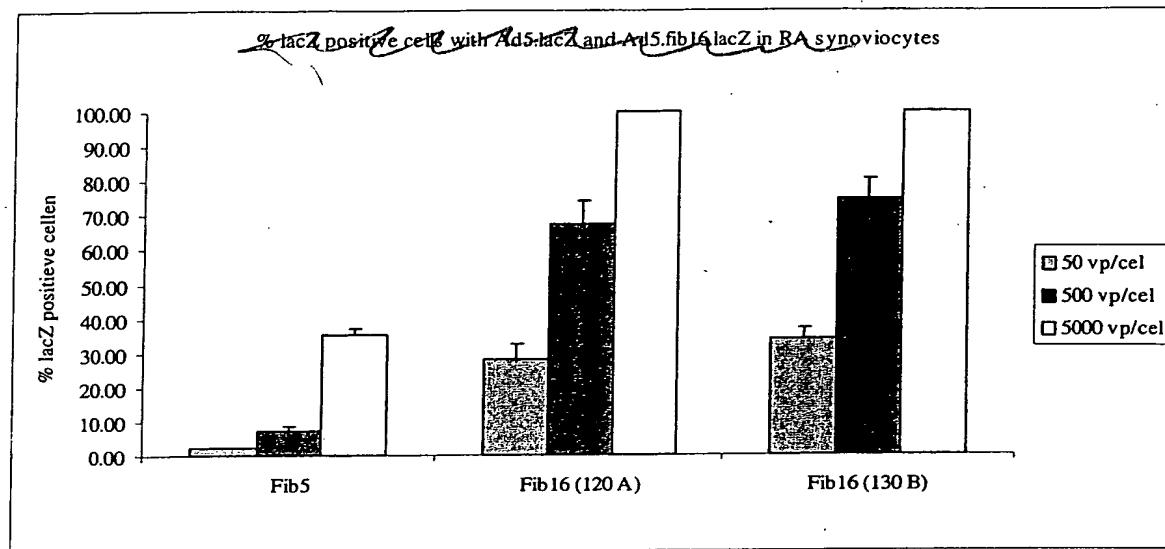
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### Annotated Sheet Showing Changes



- ① Enlarge + Rotate + Remove Border ? Fig. legend
- ② add centered "FIGURE 15"



TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

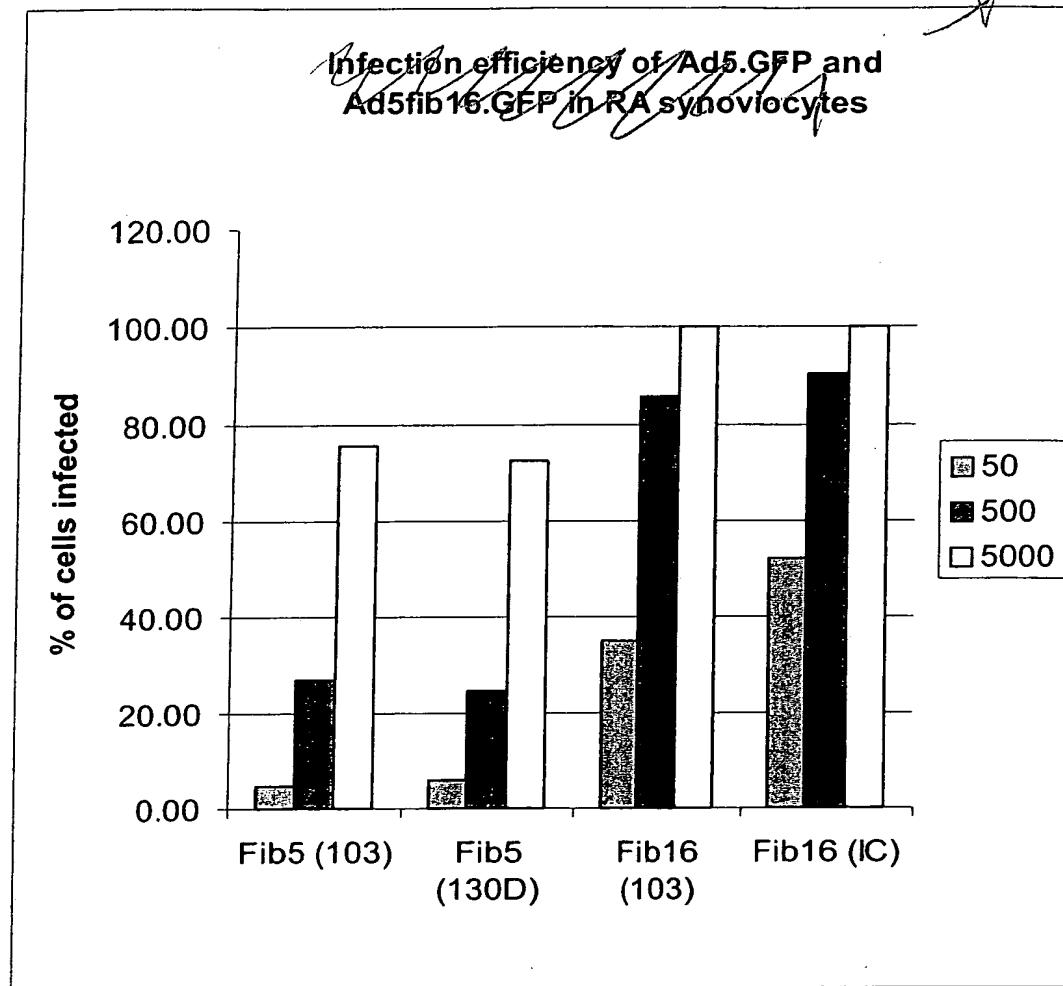
Inventor: Vogels et al.

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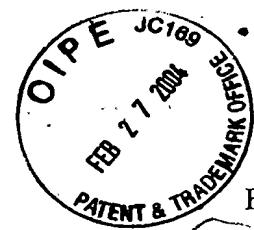
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### Annotated Sheet Showing Changes

Figure 16A



- ① Enlarge + Rotate + Remove Border : Fig. legend
- ② add centered "FIGURE 16A"



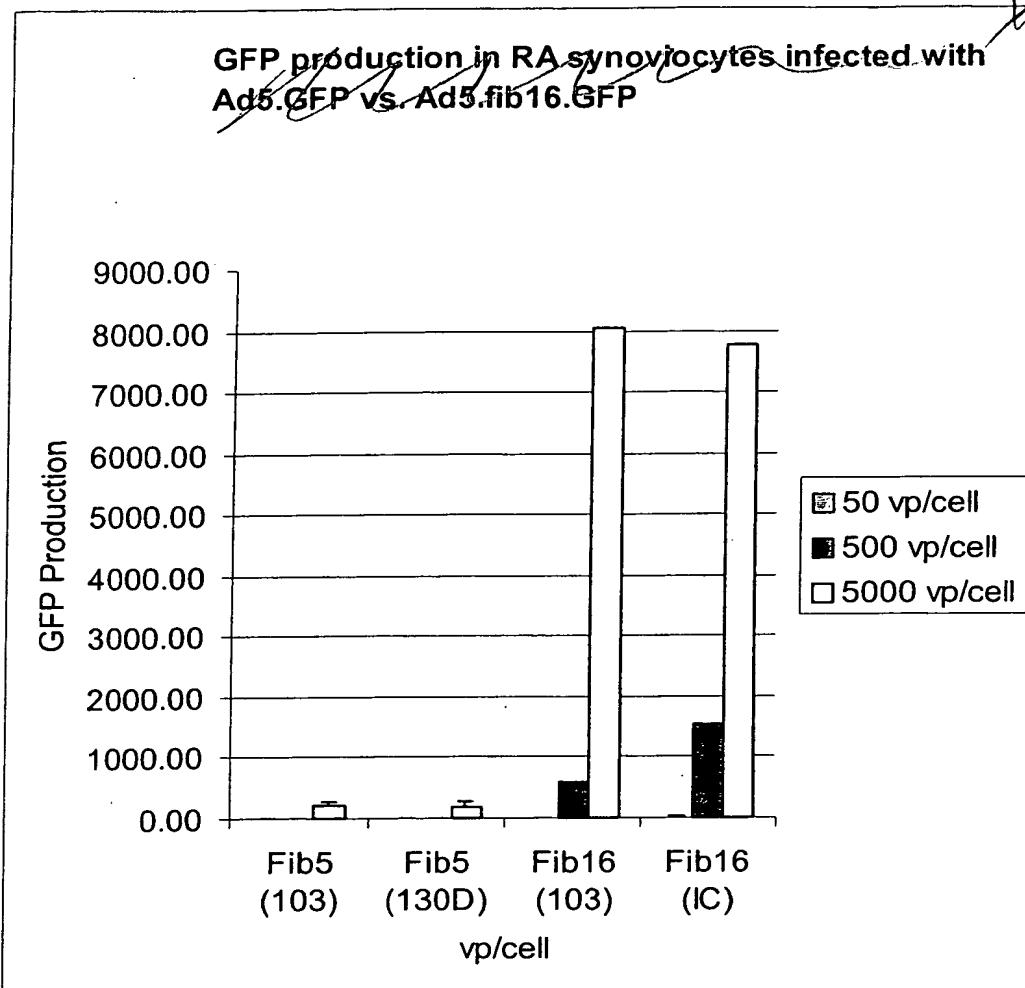
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- ① Enlarge + Rotate + Remove Brdles : Fig. legend
- ② add centered "FIGURE 16B"



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Figure 17: infectivity of panel of chimeric adenoviruses on RA synoviocytes

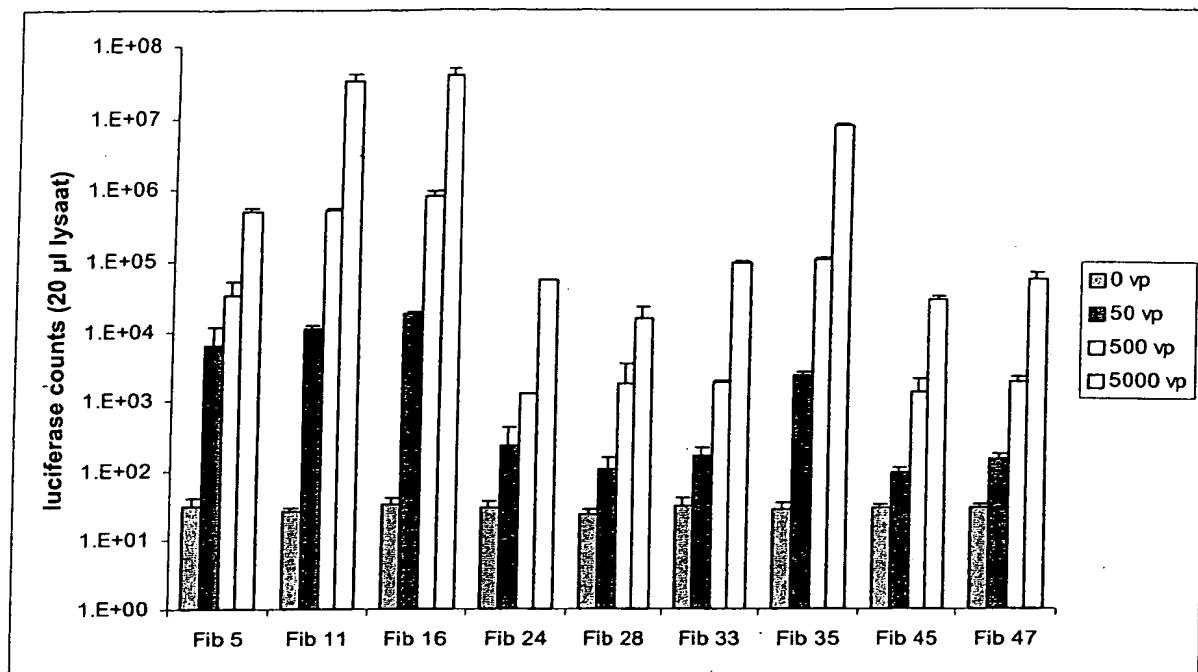
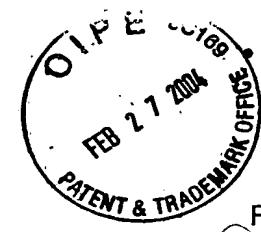


Figure 17

- ① Enlarge + Rotate + Remove Border & Fig. legend
- ② add centered "FIGURE 17"



TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

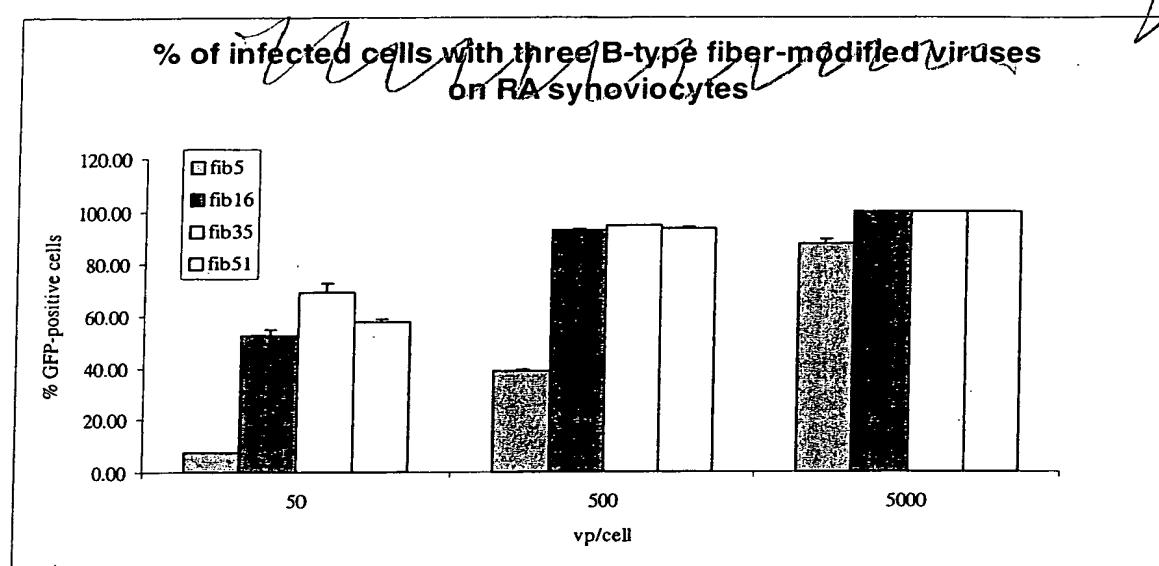
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Figure 18A



- ① Enlarge + Rotate + Remove Border & Fig. legend
- ② add centered "FIGURE 18A"

O I P E  
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Annotated Sheet Showing Changes

Figure 18B: GFP production with three B-type fiber-modified viruses on RA synoviocytes

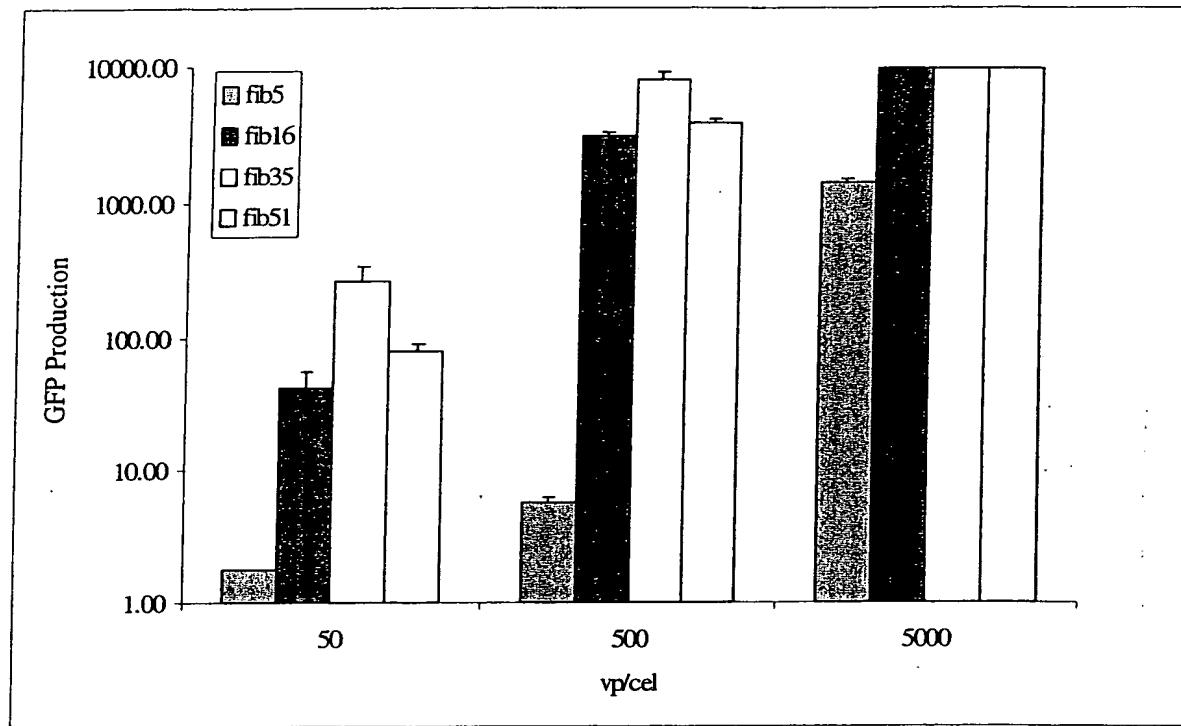
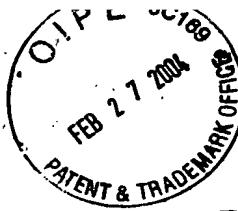


Fig 18B

- ① Enlarge + Rotate + Remove Border & Fig. legend
- ② add centered "FIGURE 18B"



TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

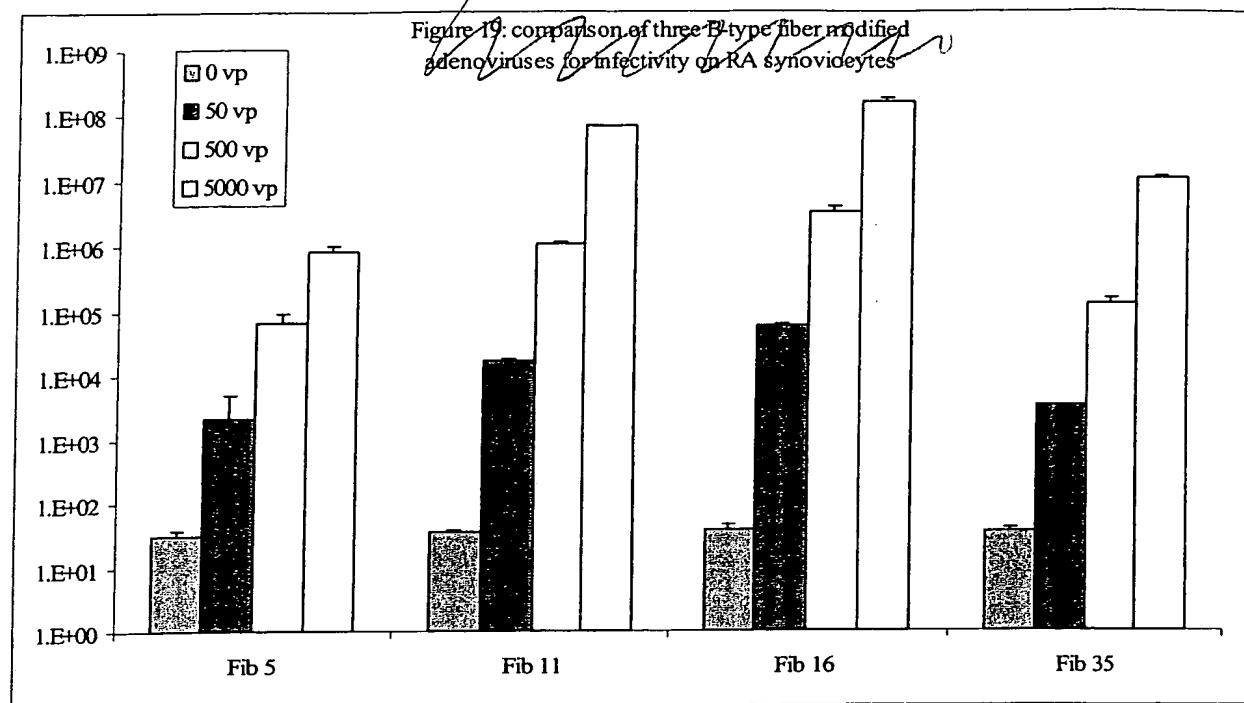
Inventor: Vogels et al.

Serial No.: 09/517,898 Docket No.: 2578-3982.2US

312 Amdt. Dated February 23, 2004

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Figure 19



- ① Enlarge + Rotate + Remove Border & Fig. legend
- ② add centered "FIGURE 19"



TITLE: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

Serial No.: 09/517,898 Docket No.: 2578-3982.2US

312 Amdt. Dated February 23, 2004

### Annotated Sheet Showing Changes

Figure 20: comparison of infectivity Ad5.lacZ vs. Ad5.fib16.lacZ in RA synoviocytes from

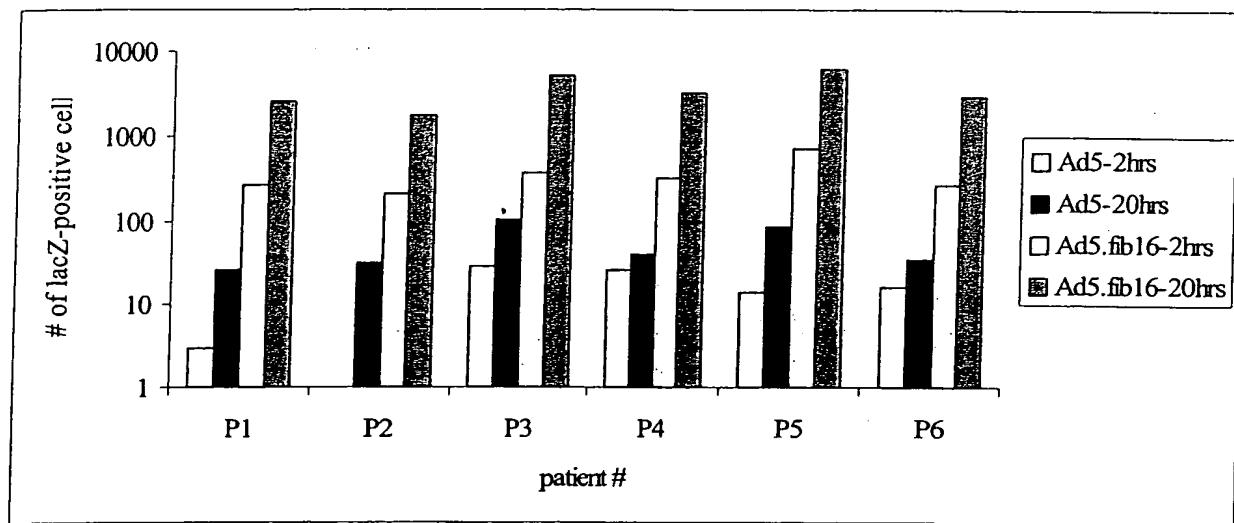


FIGURE 20

- ① Enlarge + Rotate + Remove Boxes in Fig. legend
- ② add centered "FIGURE 20"